

NASA TECH BRIEF

Marshall Space Flight Center



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Computerized Methods for Trafficability Analysis

Computerized methods for determining trafficability and "landmark" visibility on the lunar surface may be applicable to earth traffic problems such as expediting highway planning and selecting sites for parking lots, buildings, and recreational facilities.

Trafficability maps are already being used as aids to vehicular operation. For example, an extensive series of cross-country maps is being used for military tactical and strategic planning. These maps are based on the maneuverability parameters of a typical tracked or wheeled vehicle over a given terrain. The parameters included soil composition, surface geometry, vegetation, hydrological features, and cultural modifications. For a typical vehicle, the maps classify and display the various areas according to the ease with which they can be traversed.

The classifications are generally qualitative, rather than quantitative, in the sense that they categorize areas under such attributes as "good," "fair," and "poor" from the standpoint of traversability. By means of the newly developed computer methods, it is possible to produce a variety of trafficability maps, each displaying terrain

characteristics in a digital form which lends itself to computer analysis.

Note:

The following documentation may be obtained from:

National Technical Information Service
Springfield, Virginia 22151
Single document price \$3.00
(or microfiche \$0.95)

Reference:

NASA CR-1881 (N71-30661), Trafficability and Visibility of the Lunar Surface

Patent status:

No patent action is contemplated by NASA.

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